

The Last Blue Planet

71%
Water



29%
Land

HUMAN POPULATION GROWTH CHART

(including projections)

I THINK I CAN...
I THINK I CAN...
I HOPE I CAN...
I REALLY HOPE I CAN...
MAN, I HOPE I CAN...

Human population increased almost 5 times since the 1900's !!!



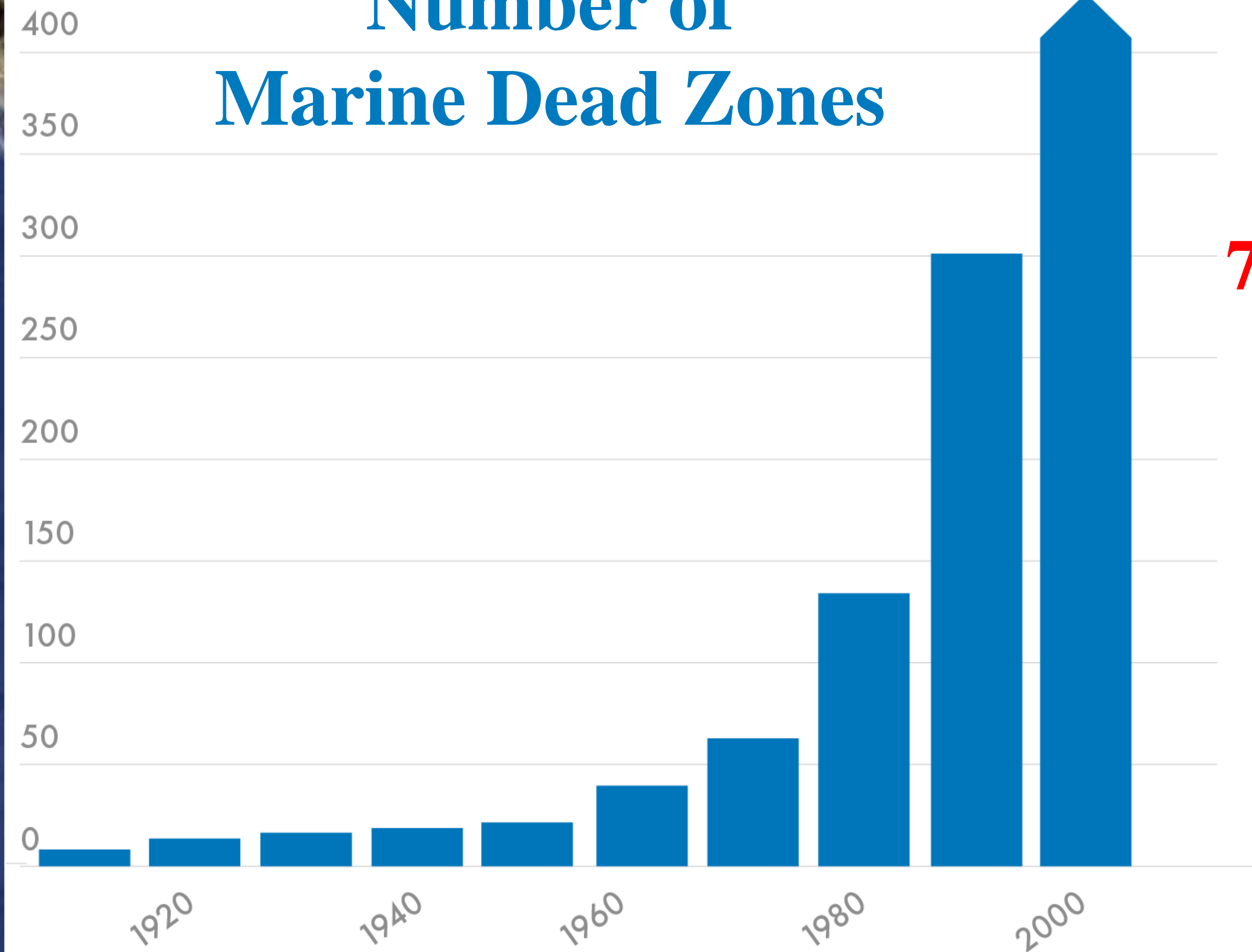
Масово измиране на живи същества на Земята

	Процент измрели организми	Видове	Кога	Основен фактор
1	82-88%	Безгръбначни	440 млн. г.	Климат
2	79-87%	Мориски животни	364 млн. г.	Климат
3	93-97%	Всички видове същества	251.4 млн. г.	Вулкани
4	76-84%	Всички видове същества	199.6 млн. г.	Вулкани
5	71-81%	Динозаври, Всички видове същества	65.5 млн. г.	Астероид

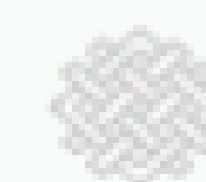
	58%	Риби, бозайници, птици, земноводни и влечуги	Сега	Човек
	81%	Сладководните Видове	Сега	Човек
6	38%	Сухоzemните Видове	Сега	Човек
	36%	Морските видове	Сега	Човек
	67%	До 2020: Диви животни	Сега	Човек
	50%	Коралови Рифове	Сега	Човек

Map of Marine Dead Zones

Number of Marine Dead Zones



**Total Area:
7 700 000km²
=
Size of
Australia**



WORLD
RESOURCES
INSTITUTE

WILLIAM & MARY
VIMS
VIRGINIA INSTITUTE OF MARINE SCIENCE
UNIVERSITY OF VIRGINIA



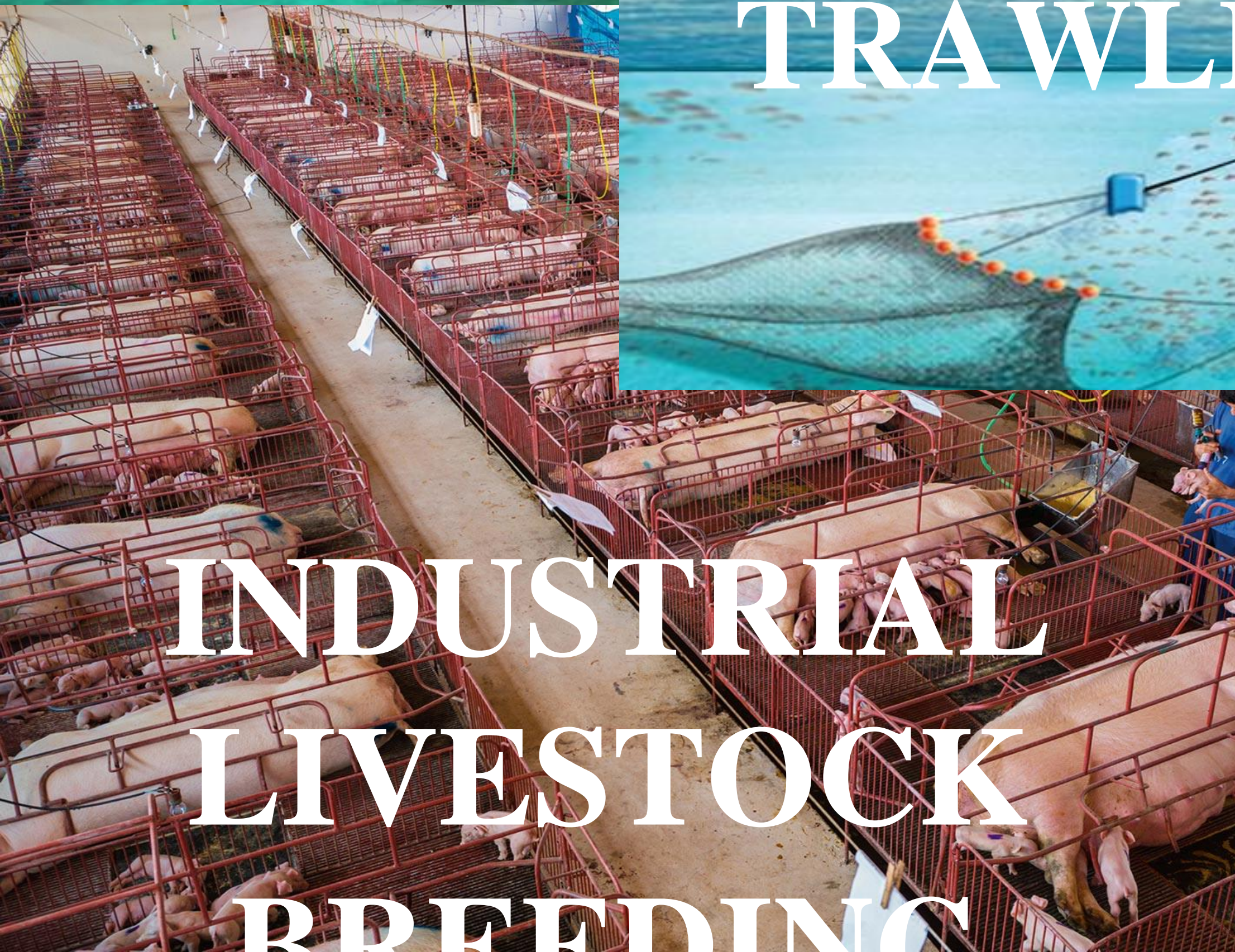
**HOUSEHOLD
and
INDUSTRIAL
WATER WASTAGE**



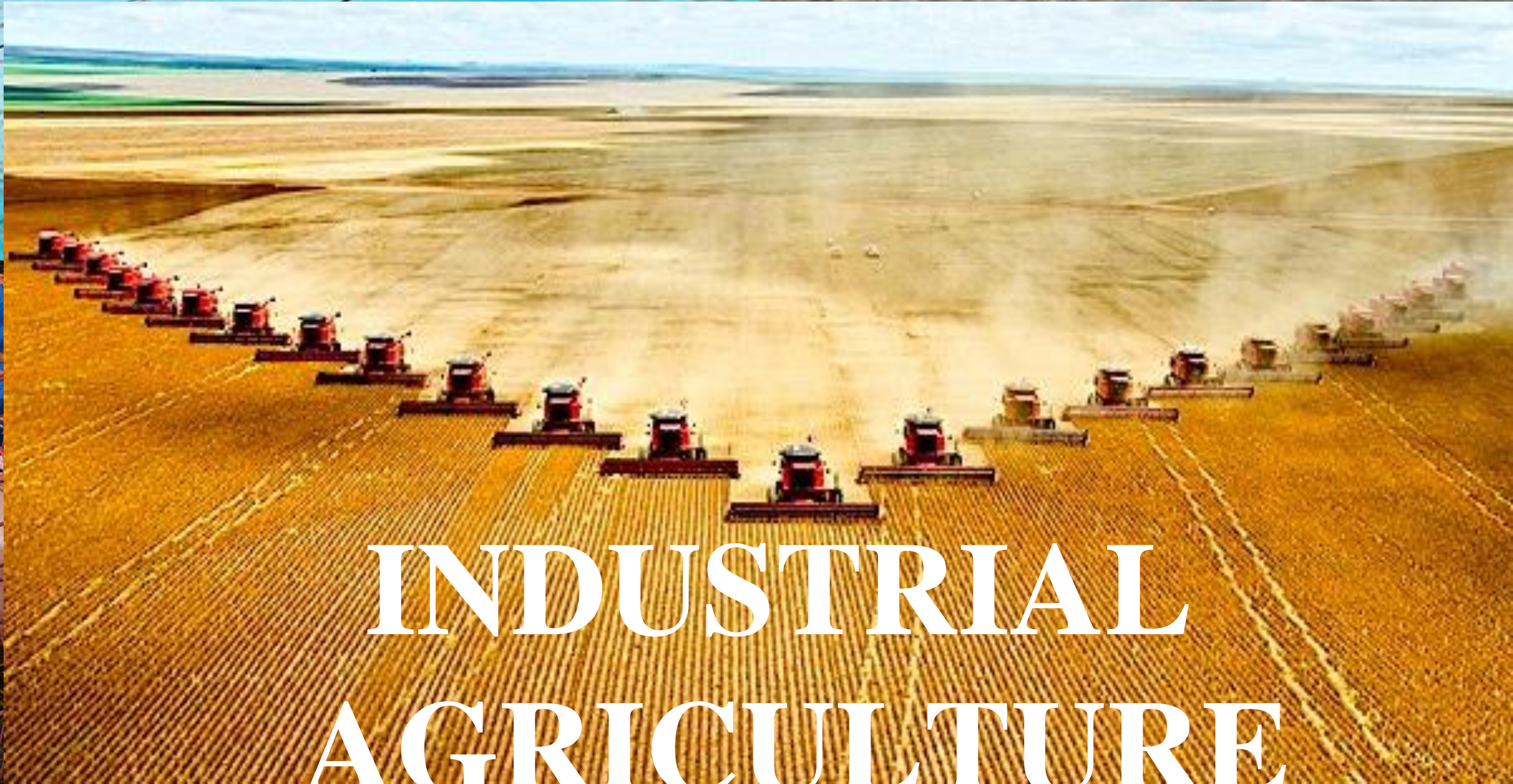
OVERFISHING



TRAWLING

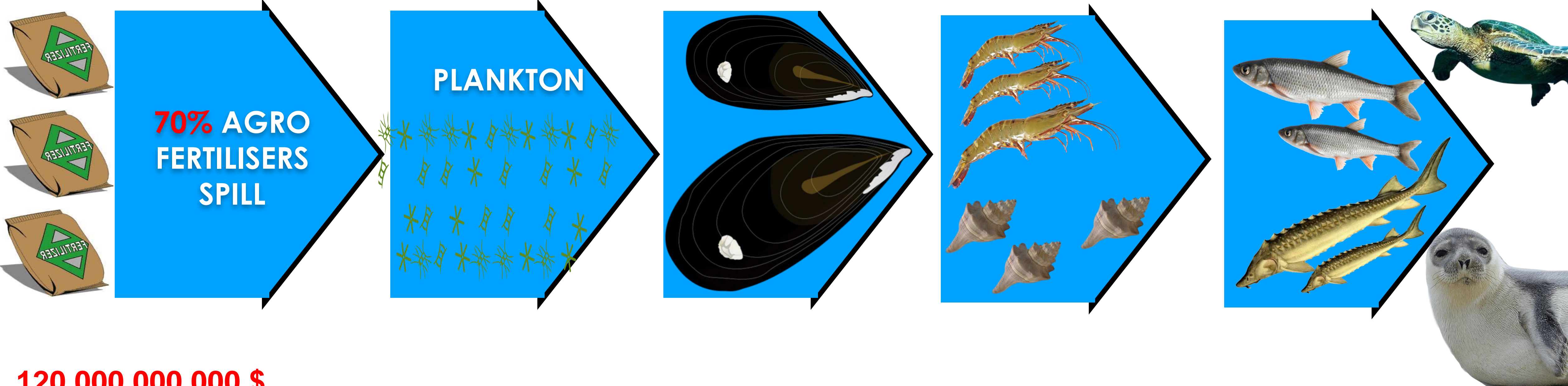


**INDUSTRIAL
LIVESTOCK
BREEDING**

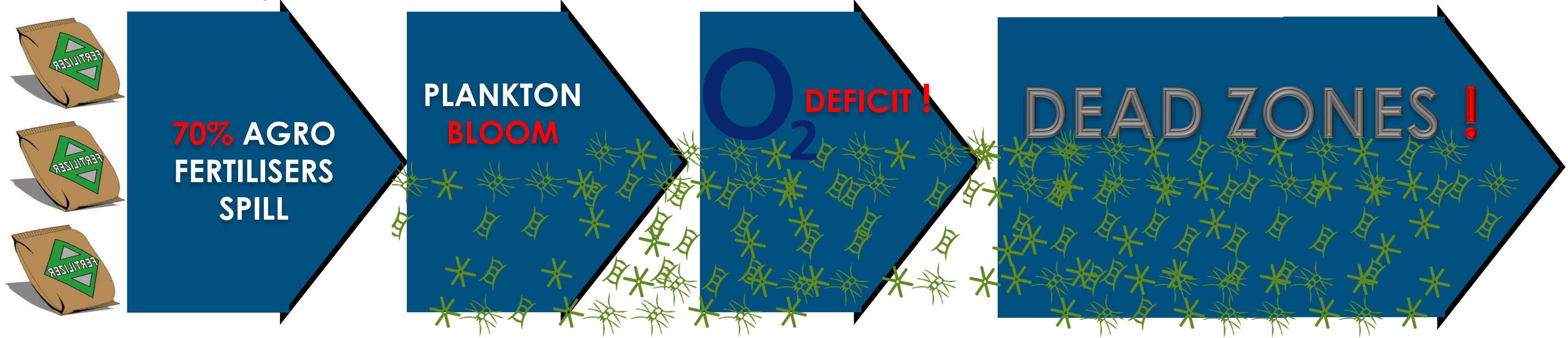


**INDUSTRIAL
AGRICULTURE**

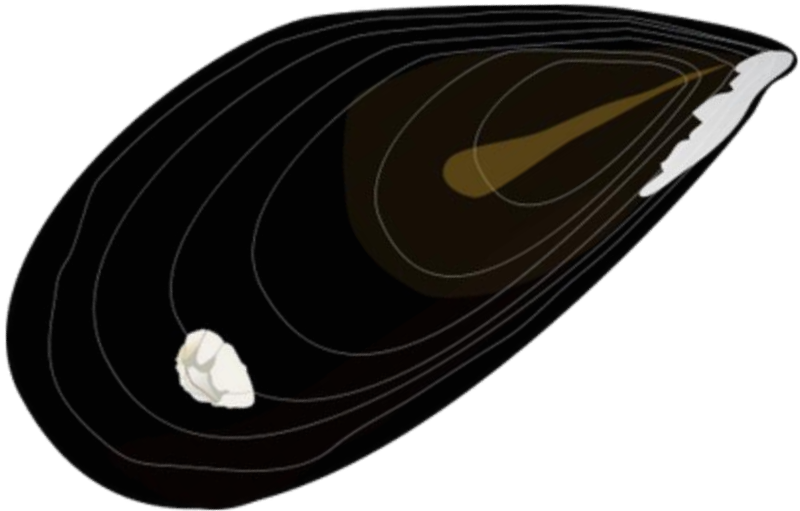
MISSING KEY PARTNER



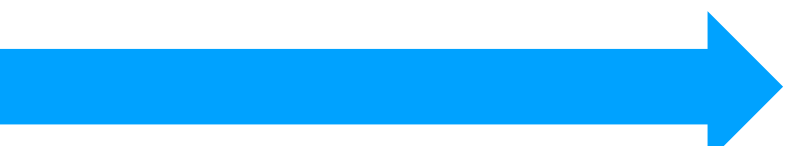
120 000 000 000 \$



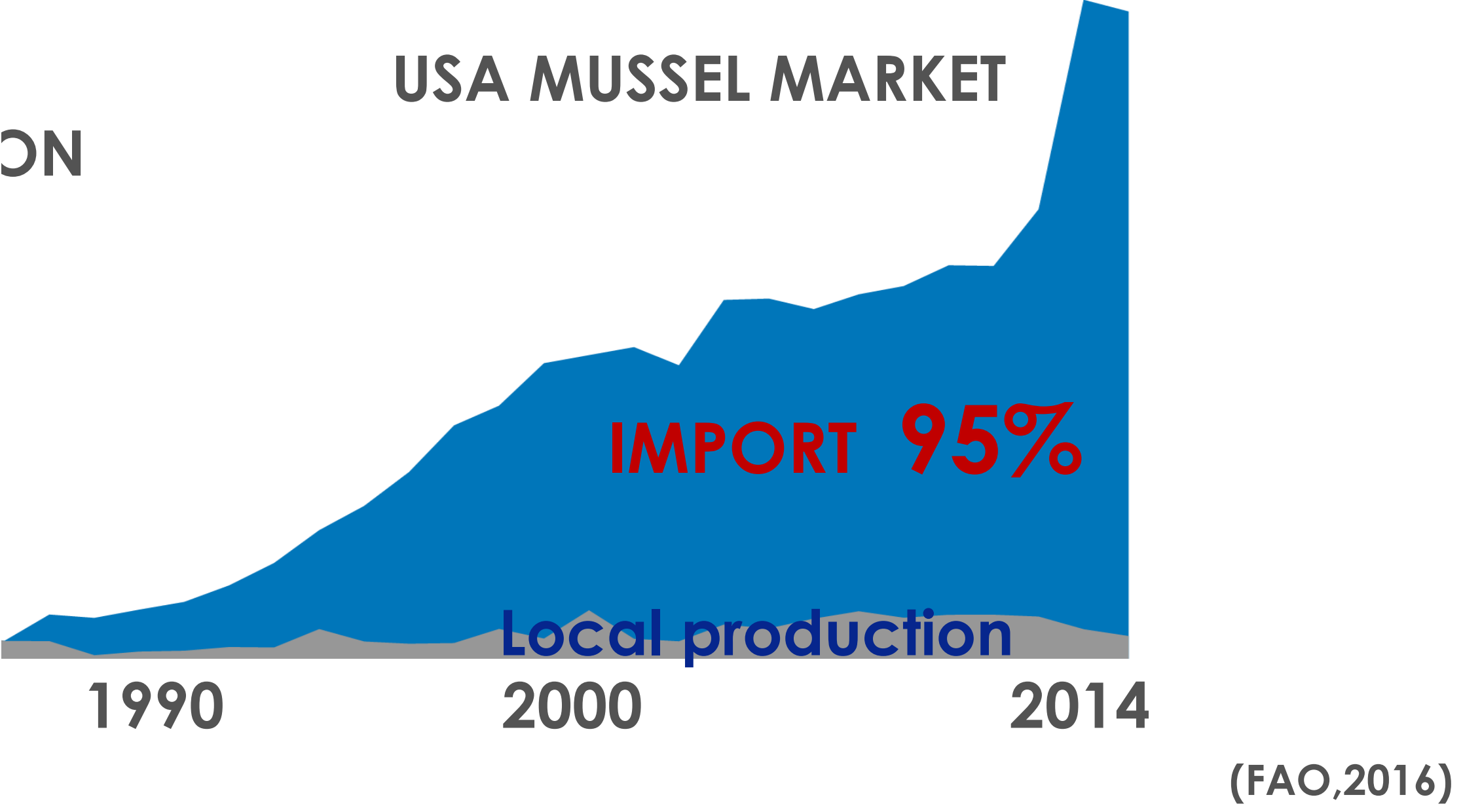
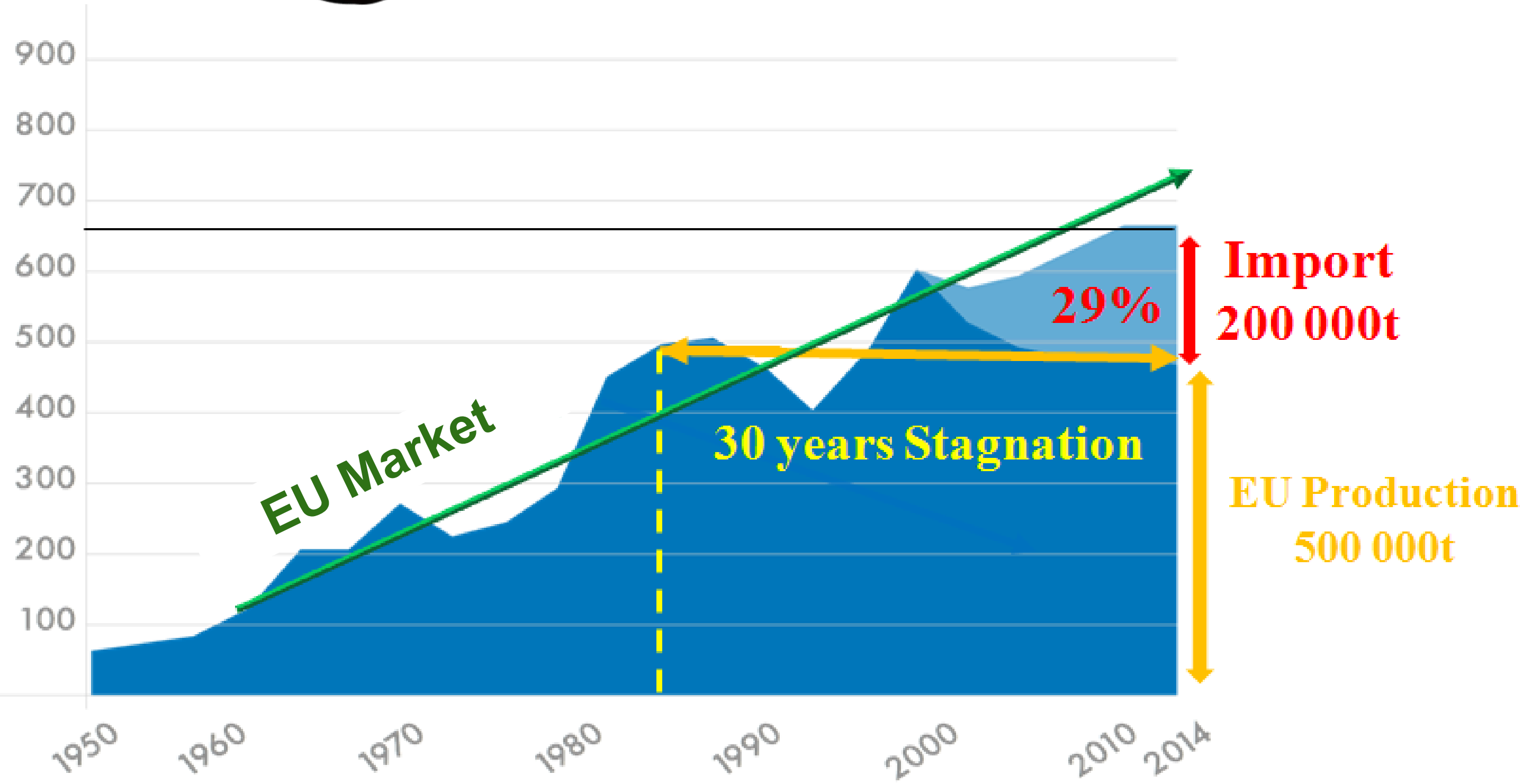
Market



Economic Problem



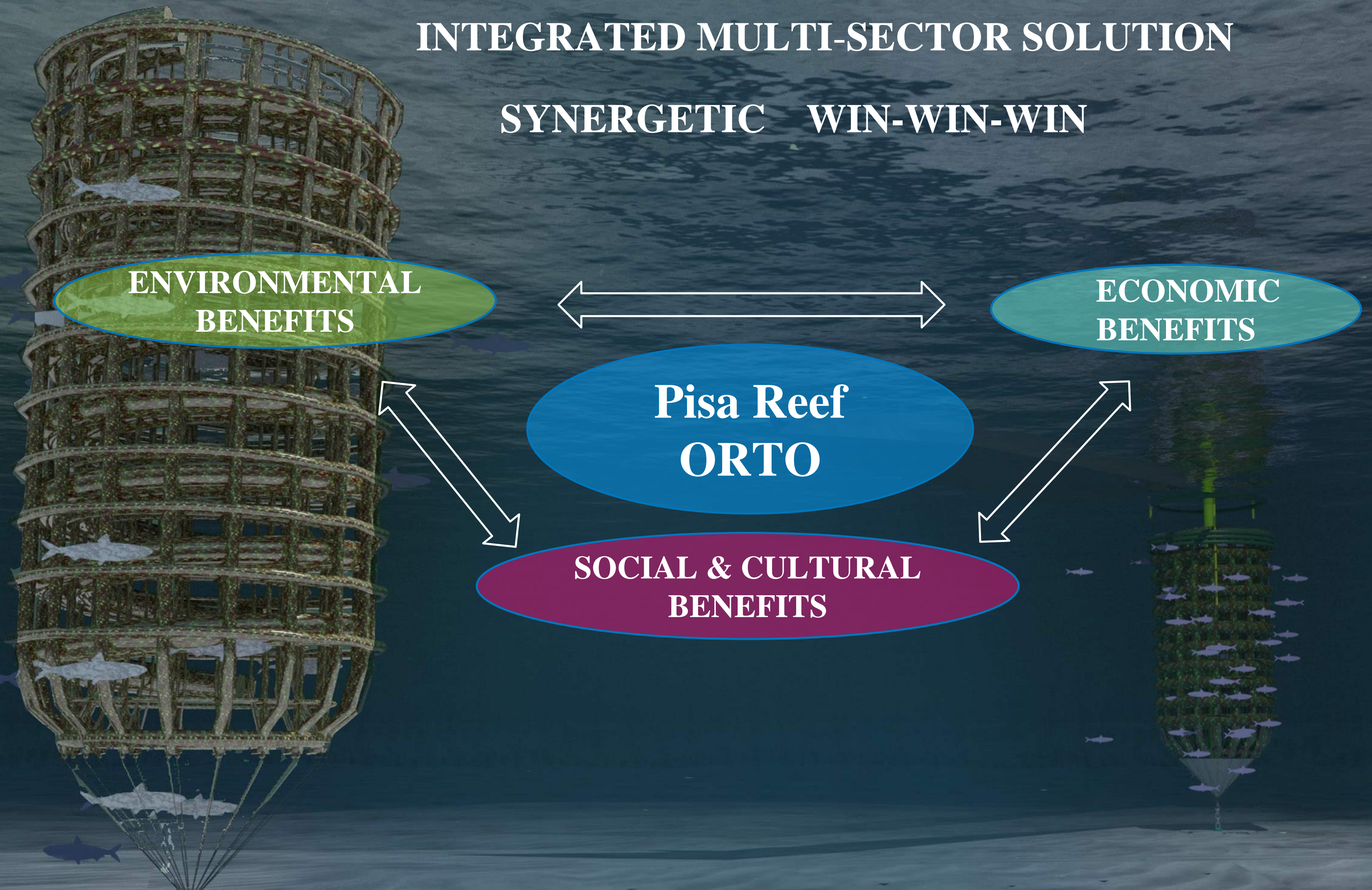
Technological Problem



(FAO, 2016)

INTEGRATED MULTI-SECTOR SOLUTION

SYNERGETIC WIN-WIN-WIN



**Ocean
Reef-
Tower
Oases**



Some of most widespread Artificial Reef Structures





COASTAL

OPEN SEA

Traditional

farm

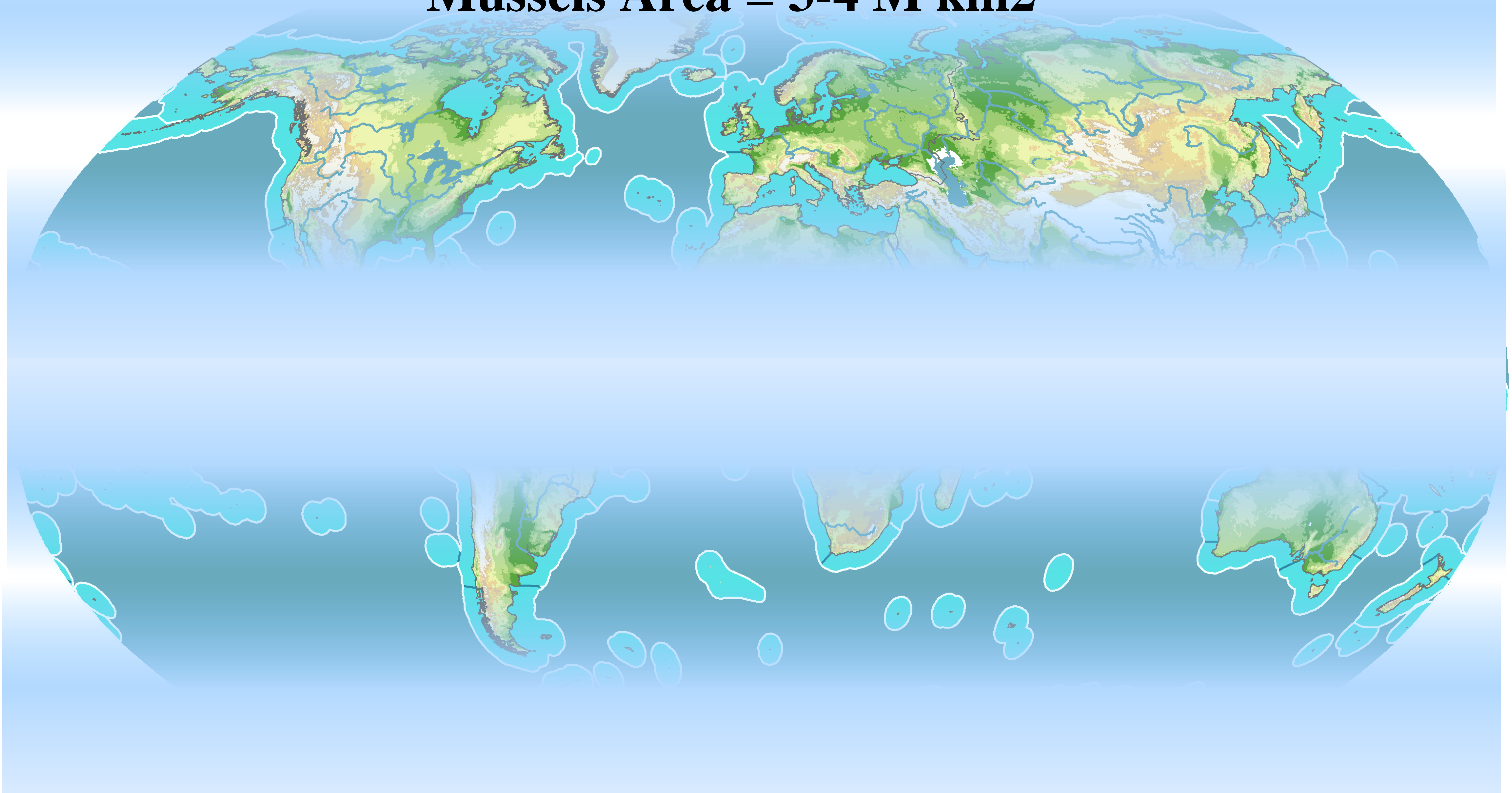
ORTO



10 times more production capacity

Open Sea Shelf = 9% x World Ocean = 32 M km²

Mussels Area = 3-4 M km²



Unlimited Potential for marine food production

REEFS

Research and Restoration of the Essential Filters of the Sea

Black Sea Cross Border Cooperation

Measurements: d 2.25 m, H 7 m

12 ps. Small Reef Pisa in Bulgaria

8 ps. Small Reef Pisa in Romania

4 ps. Small Reef Pisa in Georgia

4 ps. Small Reef Pisa in Turkey



Measurements: d 3,3 m H 12,5 m

9 ps. 12m Reef Pisa in Bulgaria

REEF  formers club



NATURAL FISH HUB

ORTO products



ORTO CO-PRODUCTION :

1. Mussel predators
2. Wild Shrimps
3. Wild Fish

MUSSELS:

1. Market size
2. Small mussels for animal feed

NUTRENTS & MICROELEMENTS ONE WAY TICKET



EUROPE SOILS:





CHANCE to REBUILD the BODY of the SOILS

Composting Mussel Shells



PISA REEF / ORTO



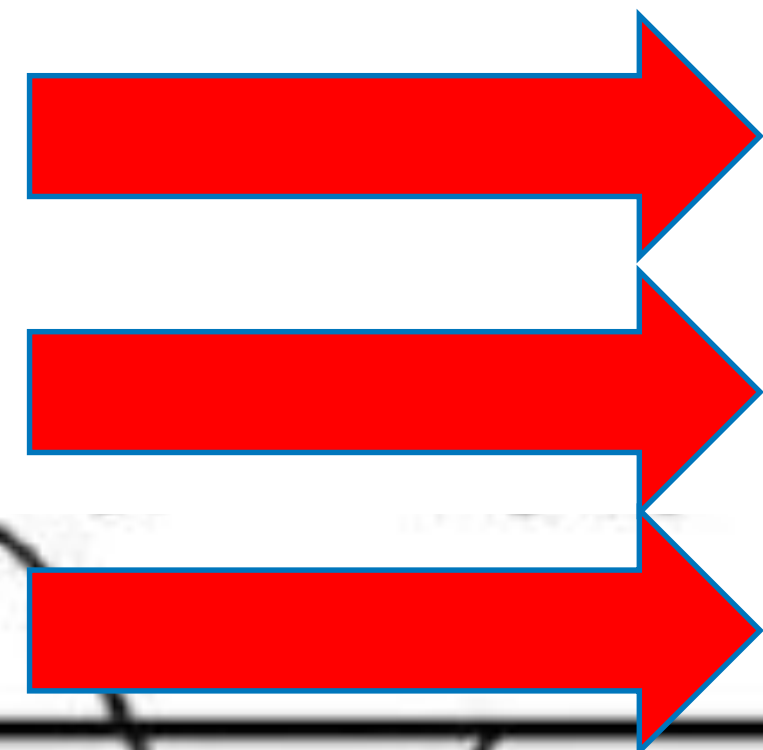
Granulation



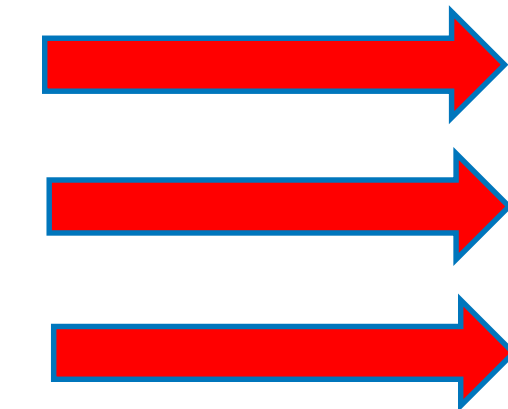


DECREASING WAVE ENERGY & COASTLINE EROSION

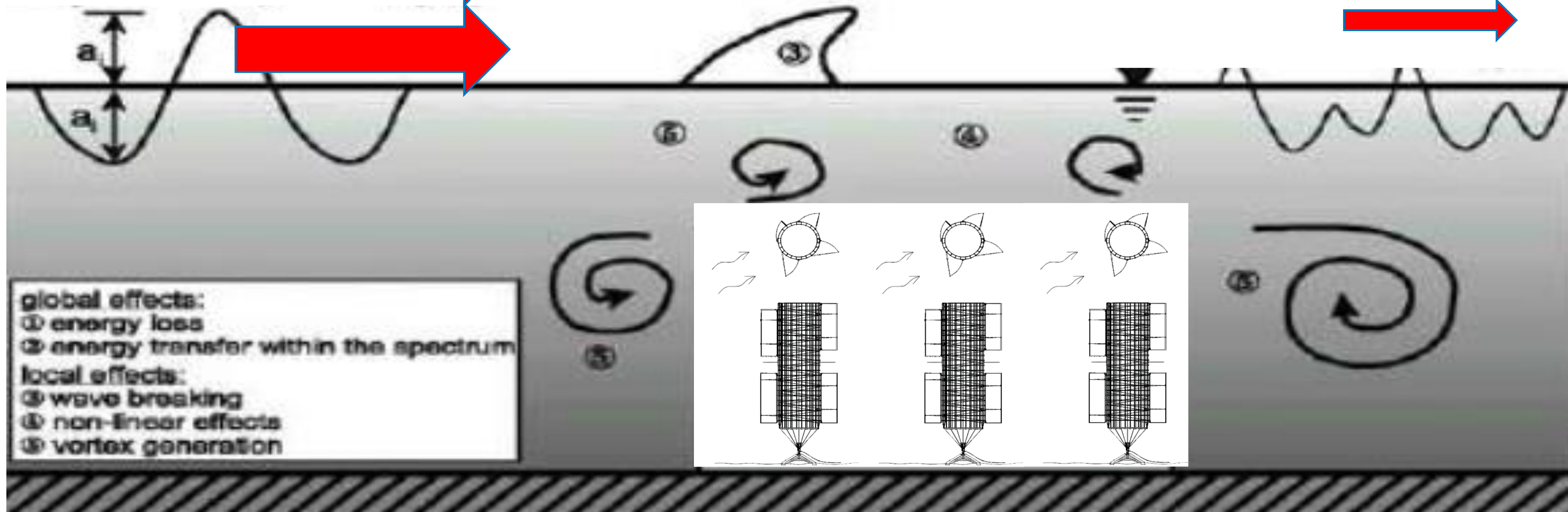
HIGH WAVES



WAVE ENERGY

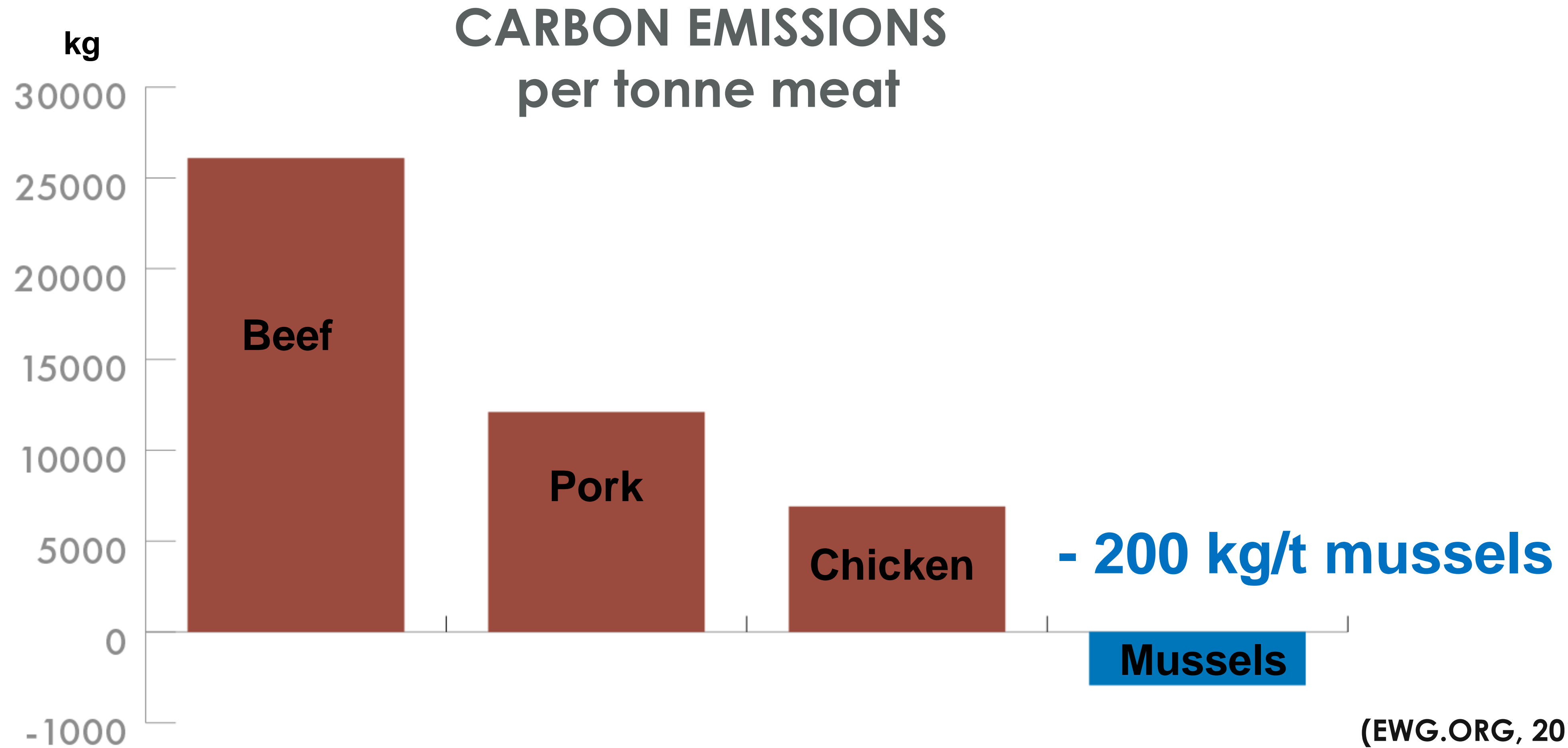


LOW WAVES



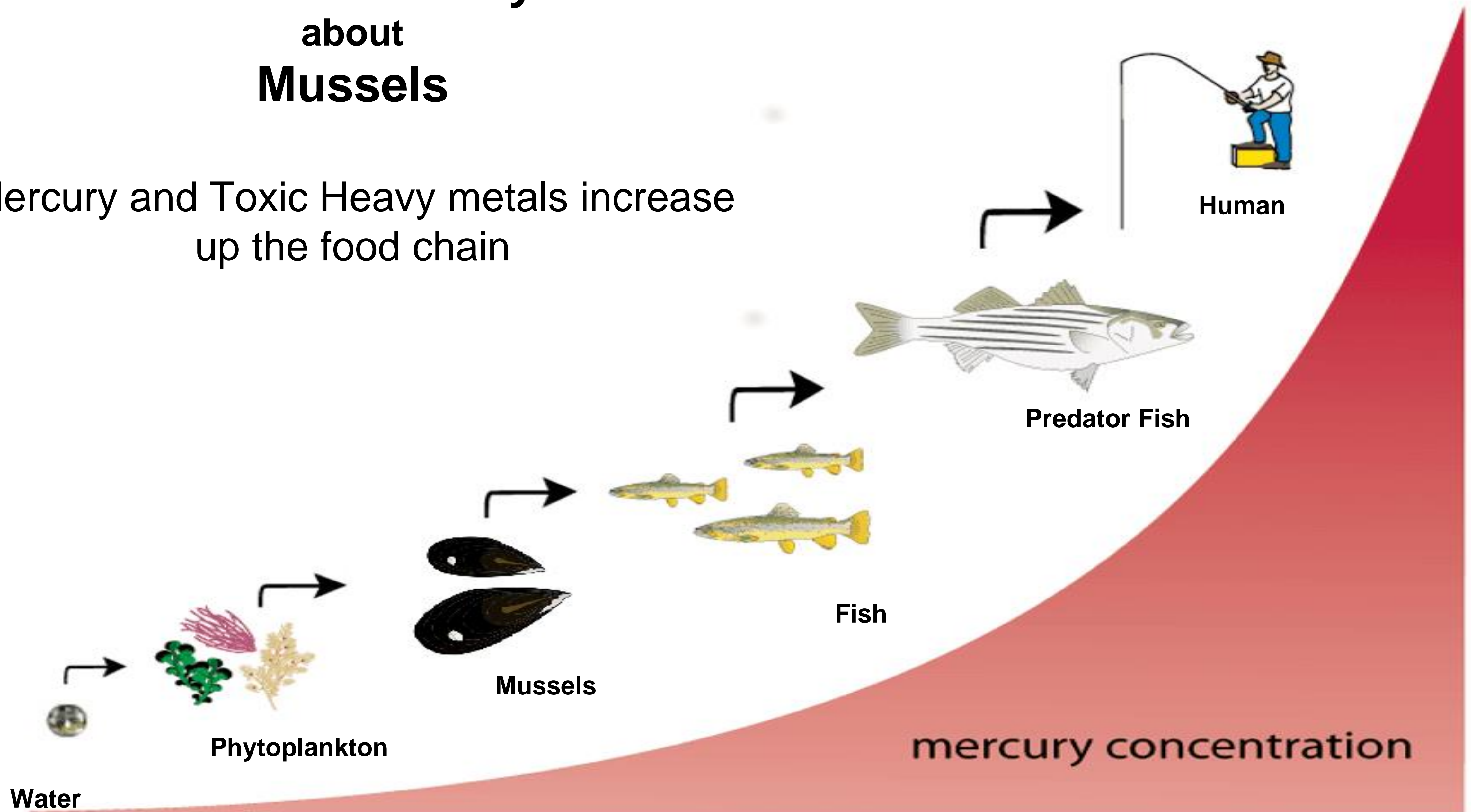
ORTO's

LOW CLIMATE IMPACT

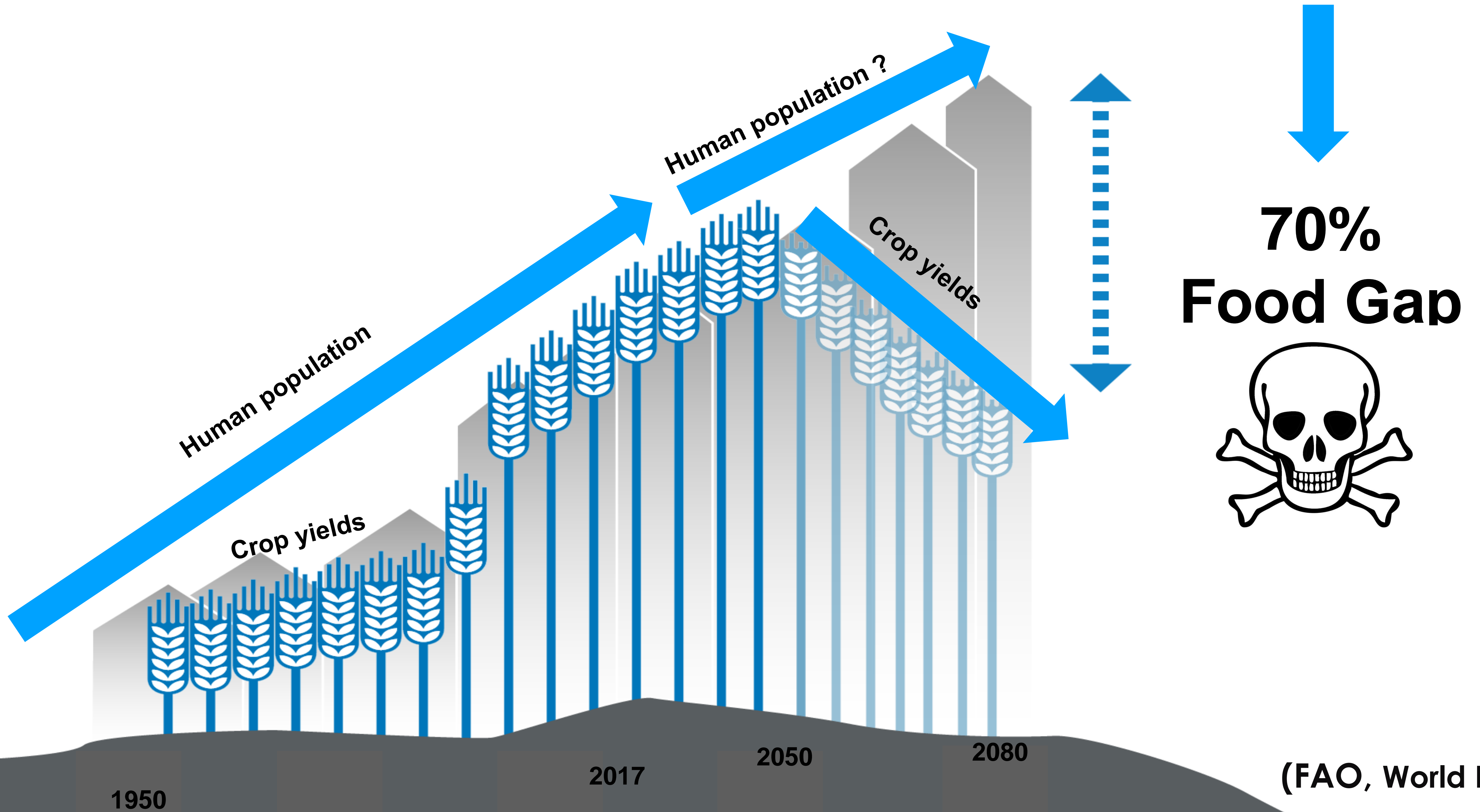


Health Facts vs Myths about Mussels

Mercury and Toxic Heavy metals increase
up the food chain



Human Population + Crop Yields = ...?



**EUROPE
SOILS:**

71% of Planet is Water



**75% of the used Land
is for Agriculture**



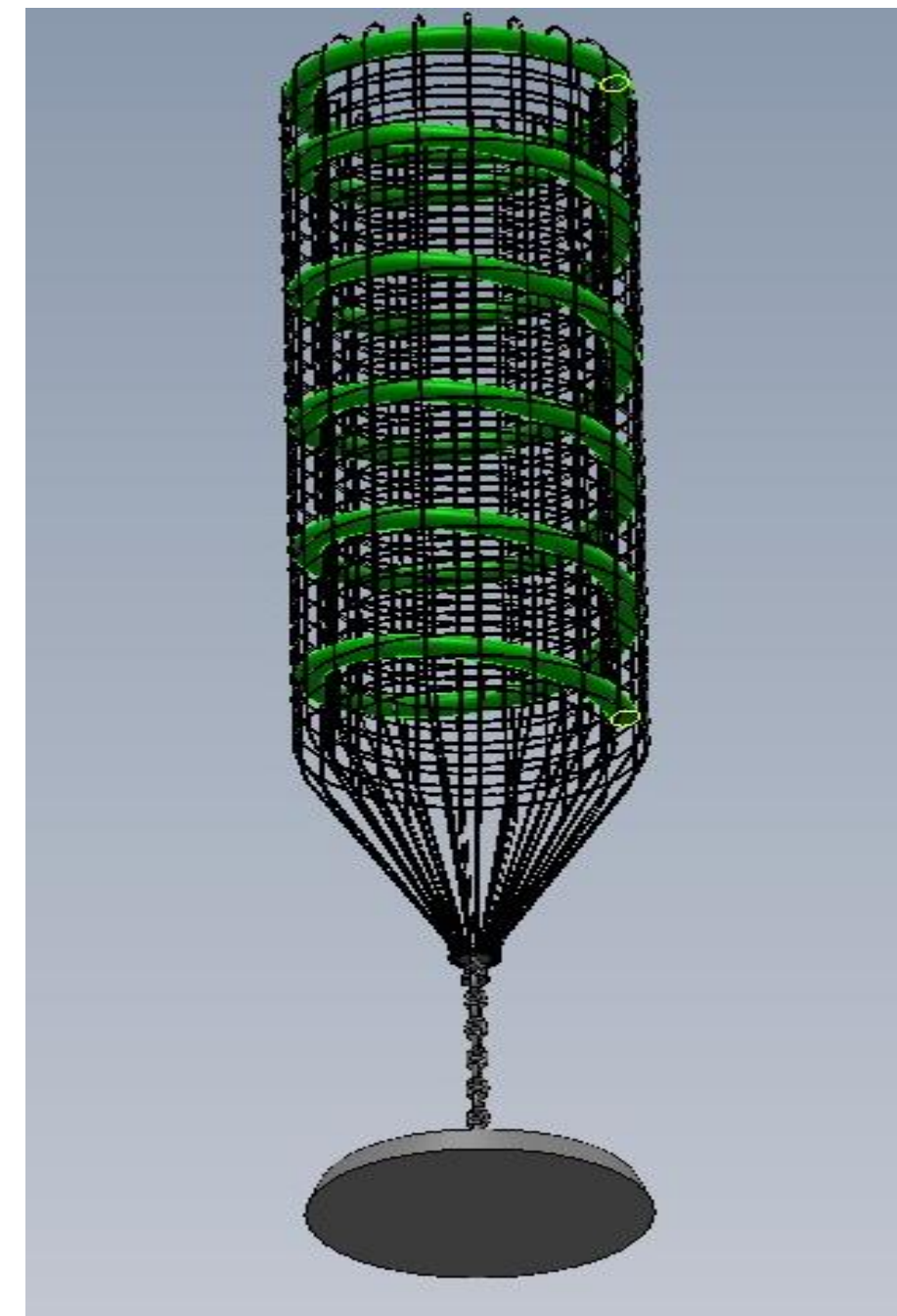
**45 % of the organic LOST!
76% of the micro mineral content LOST!**



+



**Consuming
70%
of the fresh water**



www.shutterstock.com - 376733542

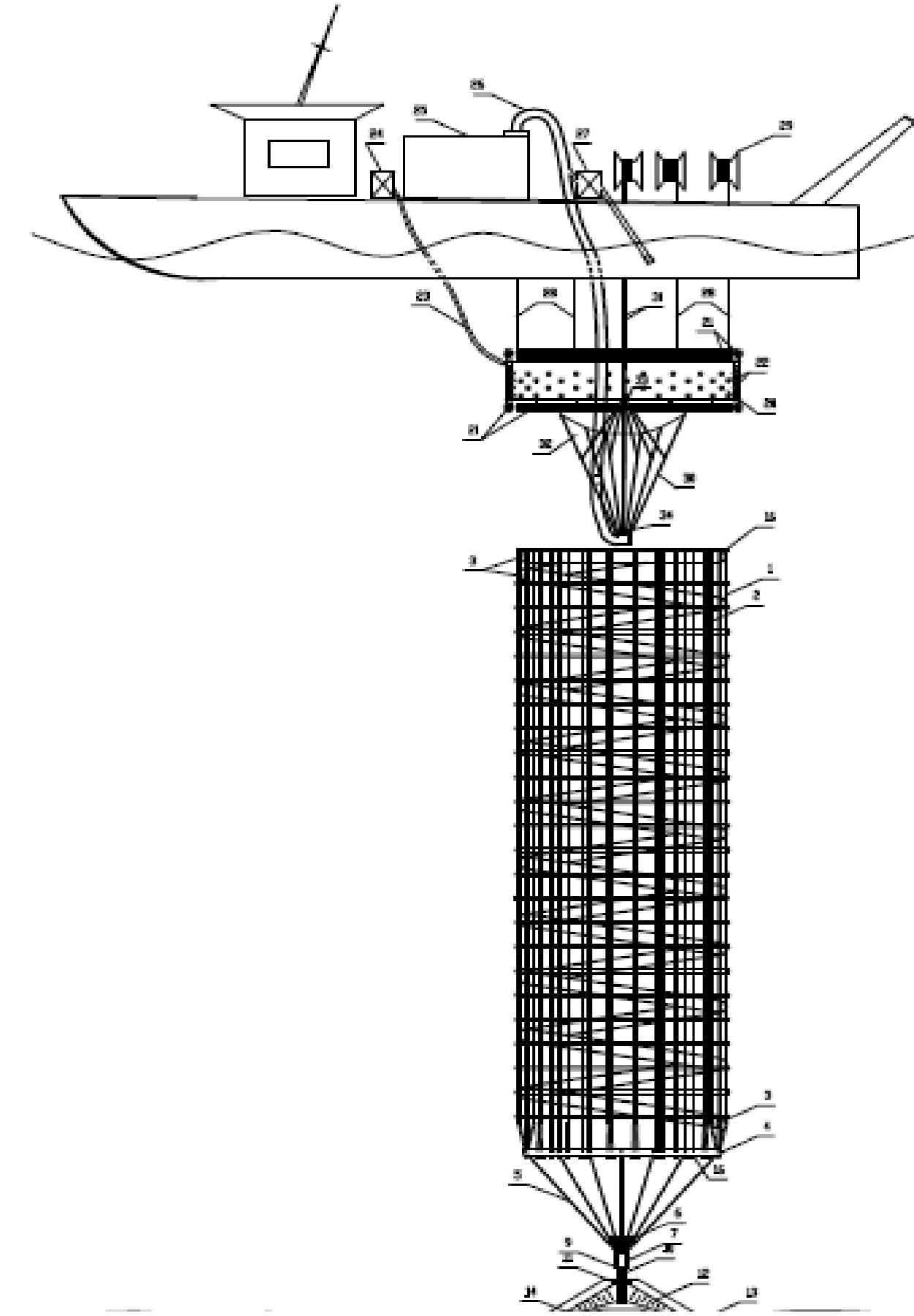
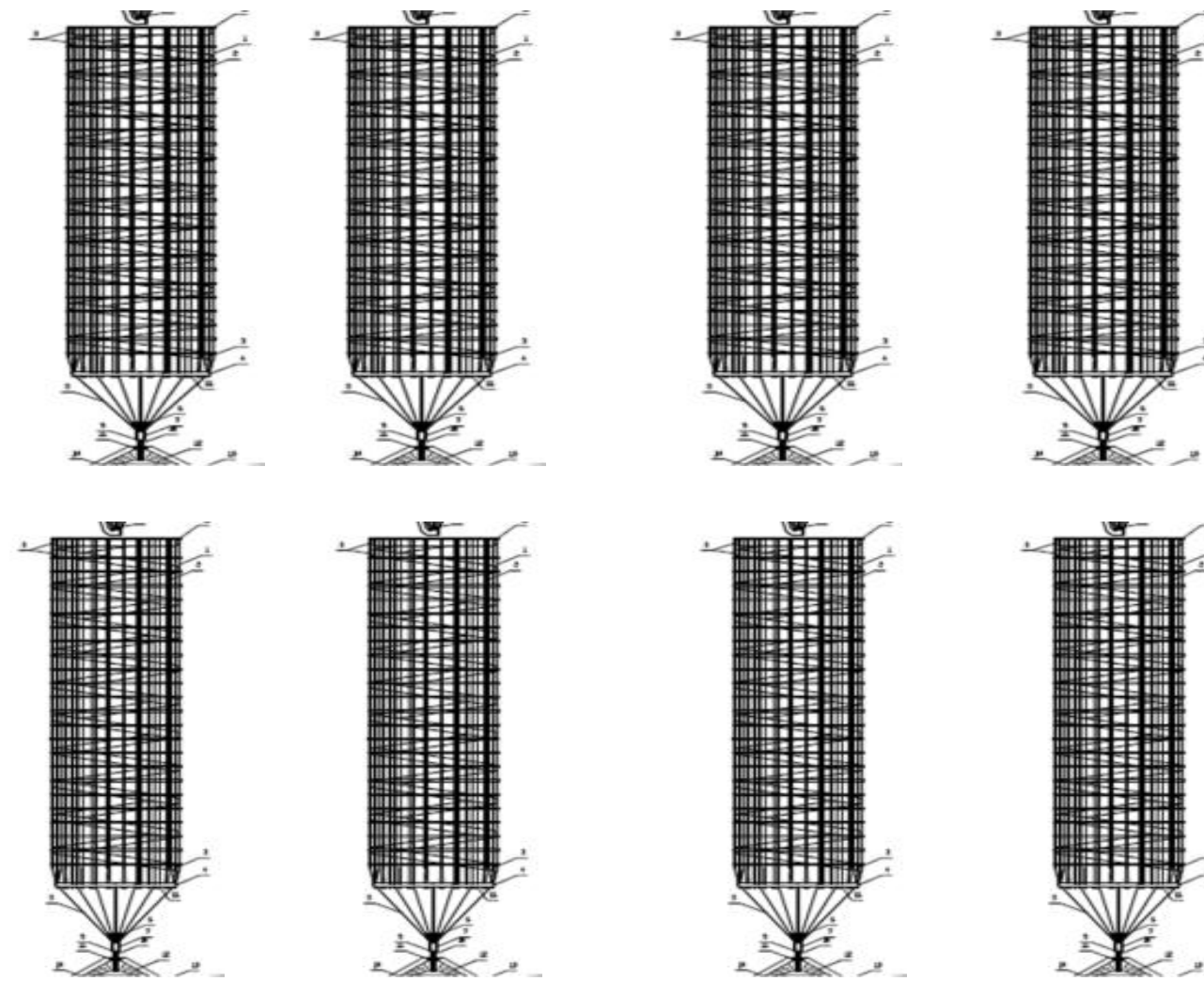
**NO !! Animal Feed
NO !! Fresh water
NO !! Fertilizers**

Next Needed Steps ...

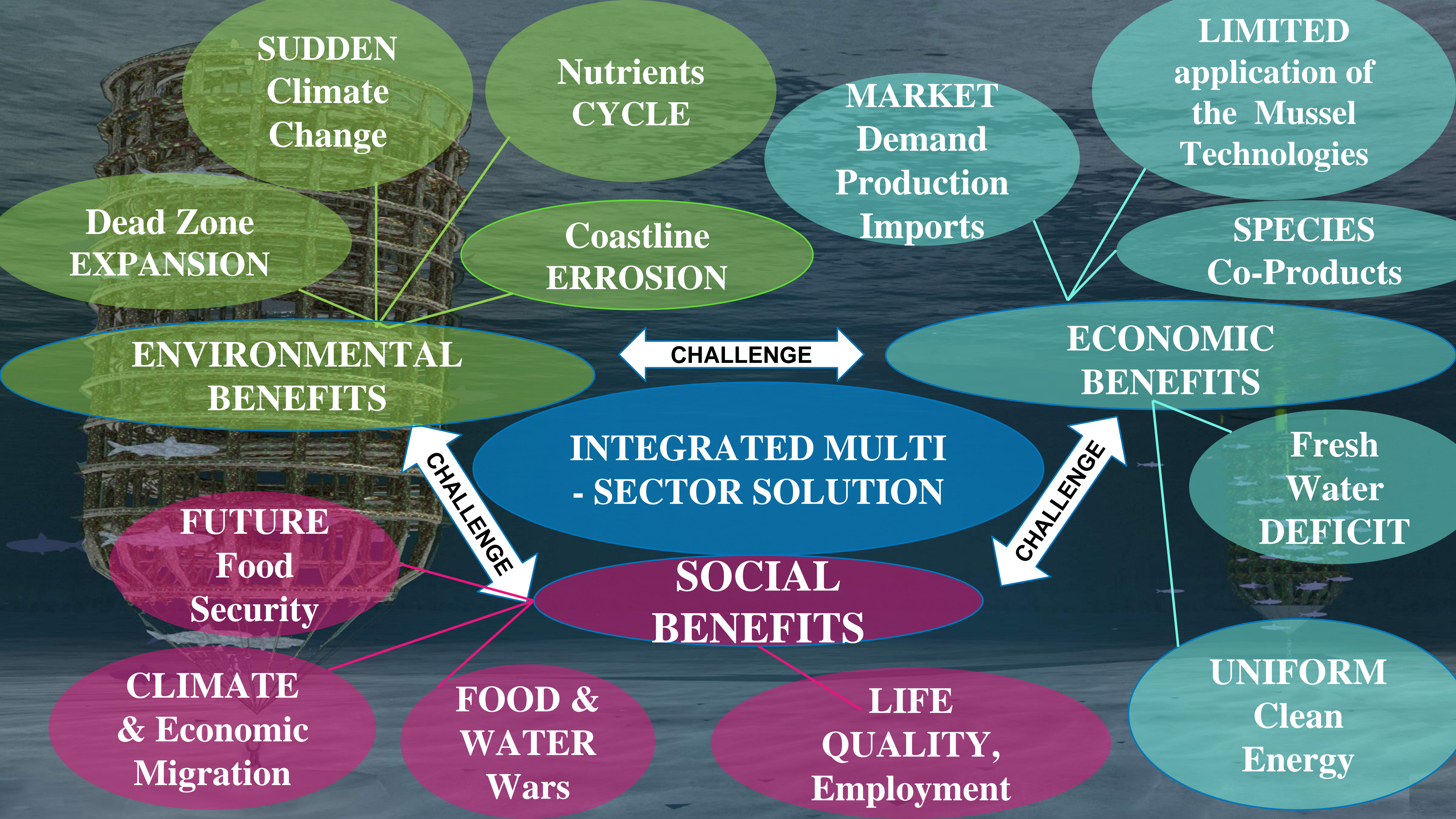
1. Technological line For serial production



2. Pilot Farm



3. Harvesting System



Let's Reef Together

Thank You 😊

www.Sea-Harmony.com

... WHO WE ARE

Our motivated and highly trained team of experts in this innovative and specialized initiative.

Arman Sarkisyan
Project manager
marine ecologist
innovator



eng. Petar Atanasov
Project engineer
ship engineer



Ivaylo Todorov
Production manager
innovator



eng. Svetlana Papazheva
Office manager
electrical engineer



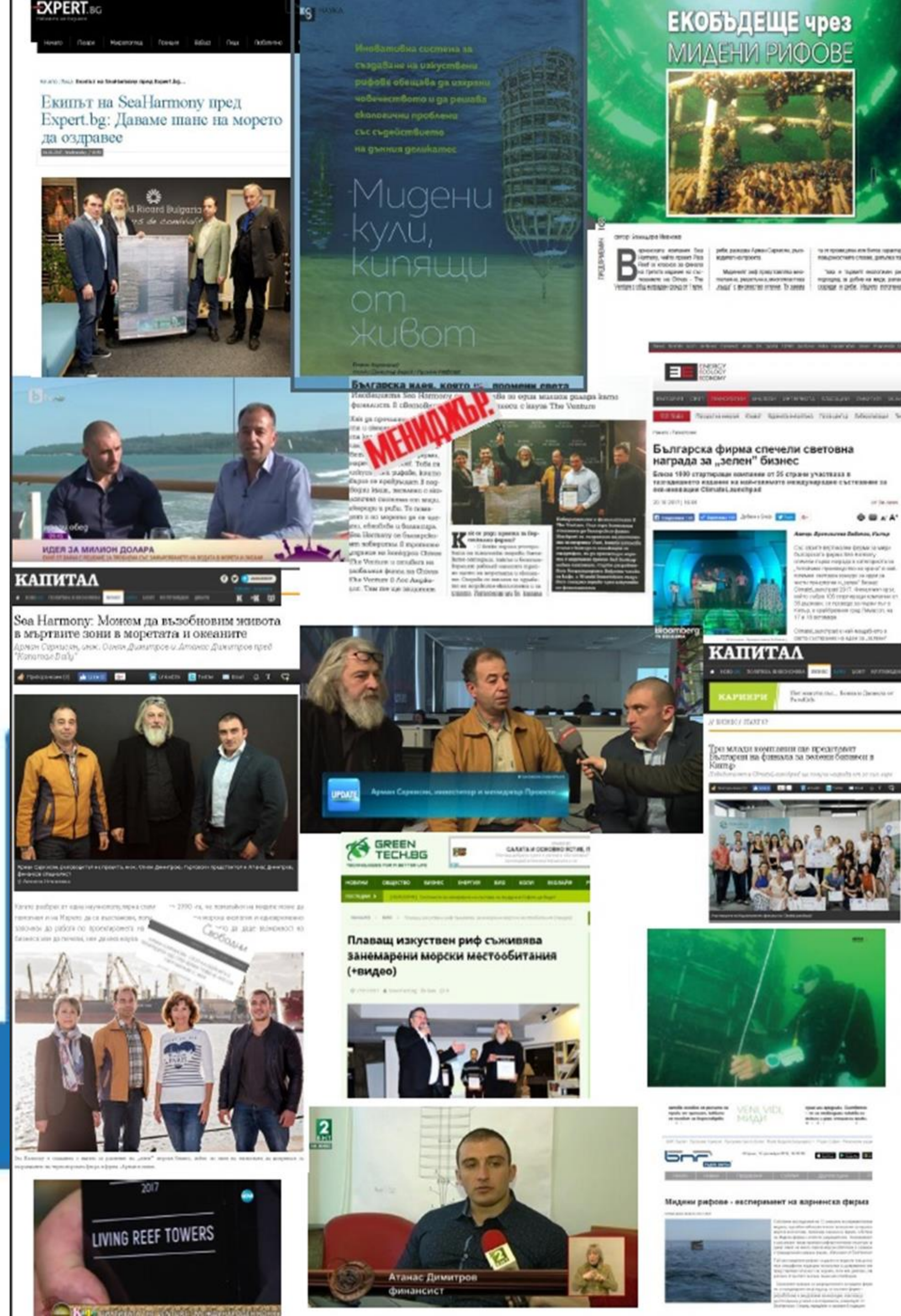
Atanas Dimitrov
Finance department
corporate finance

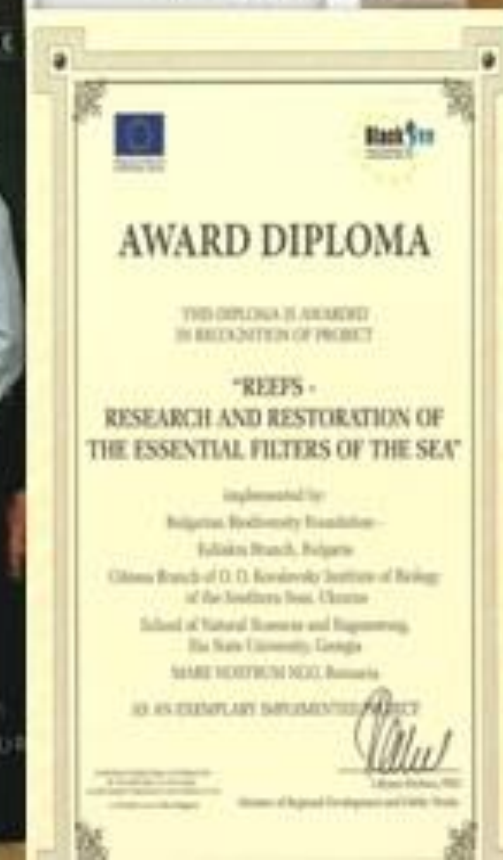


Veliko Petrov
Maritime operations
diving instructor



Avgust Ivanov
Production designer





Superiority of the Mussels

1. Less calories
2. Same amount protein as other as beef and chicken and pork
3. Omega – 3 content comparable with salmon
4. 2 time richer in vitamin C than same amount of apple
5. Richer in Vitamins and Minerals than other meats in: B12, A, C, E, Ca, Cu, Fe, Mg, Mn, P, Potassium, Selenium, Na, Zn

Per 100gr	MUSSELS	Beef	Chicken	Salmon	
Calories		86	198	143	127
Protein		18	19	17	19
Carbohydrate		3,7	0	0	0
	Dietary Fiber	0	0	0	0
	Sugar	0	0	0	0
fat		2,213g		9,1	4.4g
Omega 3		0,8	0	01	
	Saturated Fat	0,45.3g		2,3	0.8g
Cholesterol		28mg	62mg	86mg	46mg
Sodium		286mg	68mg	60mg	75mg
Vitamins/Minerals					
	Choline	65mg	67.4 mg	58.8 mg	94.6 mg
	Niacin	1.600mg	4.818 mg	5.575 mg	7.995 mg
	Pantothenic acid	0.500mg	0.576 mg	1.092 mg	1.030 mg
	Riboflavin	0.210mg	0.154 mg	0.241 mg	0.105 mg
	Thiamin	0.160 mg	0.049 mg	0.109 mg	0.080 mg
	A	160.00 IU		00.00 IU	117.00 IU
	B12	12.00 mcg	1.97 mcg	0.56 mcg	4.15 mcg
	B6	0.050 mg	0.355 mg	0.512 mg	0.611 mg
	C	8.0 mg	0.0 mg	0.0 mg	0.0 mg
	D	0.00 IU		0	435.00 IU
	E	0.55 mg	0.35 mg	0.27 mg	0.40 mg
	K	0.1 mcg	1.1 mcg	0.8 mcg	0.4 mcg
	Ca	26.00 mg	12.00 mg	6.00 mg	7.00 mg
	Cu	0.094 mg	0.063 mg	0.065 mg	0.063 mg
	Fe	3.95 mg	1.99 mg	0.82 mg	0.38 mg
	Mg	34.00 mg	19.00 mg	21.00 mg	27.00 mg
	Mn	3.400 mg	0.010 mg	0.016 mg	0.011 mg
	P	197.00 mg	175.00 mg	178.00 mg	261.00 mg
	Potassium	320.00 mg	289.00 mg	522.00 mg	366.00 mg
	Selenium	44.8 mcg	14.2 mcg	10.2 mcg	31.4 mcg
	Na	286.00 mg	68.00 mg	60.00 mg	75.00 mg
	Zn	1.60 mg	4.55 mg	1.47 mg	0.39 mg

Top 19 Benefits Of Mussels

Check out here some of the best Mussels benefits.

- 1. Healthy Heart**
- 2. Treatment For Arthritis**
- 3. Treatment For Joint Pains**
- 4. Helps The Circulatory System**
- 5. Bone And Teeth Health**
- 6. Immune System Health**
- 7. Healthy Nervous System**
- 8. Improves Fertility**
- 9. Prevents Anaemia**
- 10. Weight Management**
- 11. Prevents Asthma**
- 12. Skin Care Benefits**
- 13. Healthy Cellular Functions**
- 14. Anti-Aging Benefits**
- 15. Great Source Of Protein**
- 17. Source Of Vitamin B12**
- 18. Rich In Omega-3**
- 19. Other Benefits**

<http://www.stylecraze.com/articles/amazing-health-benefits-of-mussels/#gref>